REMARKS

This application has been carefully reviewed in light of the Office Action dated November 29, 2002, and the Advisory Action dated September 24, 2003. Claims 1, 2 and 4 to 15 are in the application, of which Claims 1 and 11 are the independent claims. Reconsideration and further examiner are respectfully requested.

Claims 1, 2 and 4 to 15 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,478,606 (Ohkuma) in view of U.S. Patent No. 5,166,265 (Nakahata). The rejection is respectfully traversed.

The present invention as recited by Claim 1 concerns a liquid jet recording head which includes a liquid flow path having a coating resin layer. The present invention as recited by Claim 11 concerns a process for producing a liquid jet recording head wherein a coating resin layer is formed. The coating resin layer is formed from a cured product of a resin composition which includes (1) a curable epoxy compound, (2) a compound having a functional group reactive to the curable epoxy compound and fluorocarbon moiety, and (3) a curing agent. Components (1) and (2) are polymerized. According to the process of Claim 11, an ink flow path pattern is formed from a soluble resin on an ink discharge pressure generating element on a base plate; the coating resin layer is formed on the soluble resin layer; and the soluble resin layer is removed by elution to form an ink flow path. As recited by both Claims 1 and 11, the coating resin layer facilitates the smooth flow of ink through the liquid flow path.

The Office Action concedes that Ohkuma does not disclose the feature of a compound having a functional group reactive to the curable epoxy compound and a fluorocarbon

moiety. However, placing reliance on Nakahata, the Office Action asserts that the invention would nevertheless have been obvious.

An object of Nakahata is to obtain high water repellancy. See, for example, column 49, lines 33 and 34 of Nakahata. It is Applicants' understanding that Nakahata achieves this object by using at least 50% by weight of the fluorocarbon moiety-containing compound in the resin composition. When a resin layer contains such a high weight percent of a fluorocarbon moiety-containing compound, the ability of the resin layer to adhere to a liquid flow path substrate is decreased due to lower surface tension, and exfoliation of the resin layer is likely to occur. Such exfoliation would inhibit the smooth flow of ink through the flow path.

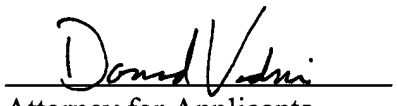
It is fundamental that a prior art reference be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. See MPEP § 2141.02. It is Applicants' understanding that Nakahata's composition is likely to result in exfoliation of the resin layer, a property which would inhibit the smooth flow of ink through the ink flow path. This is in direct contrast to the present invention, which recites that the coating resin layer facilitates the smooth flow of ink through the ink flow path. As a consequence, those of ordinary skill in the art would not contemplate the use of Nakahata's composition in a liquid jet recording head.

In view of the foregoing, Applicants conclude that the applied documents do not teach or suggest the invention either singly or in the combination proposed by the Office Action, even assuming that such combination can properly be made, and it is respectfully requested that the Section 103 rejection be withdrawn.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address given below.

Respectfully submitted,



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